

## ABSTRACT

A hydrocarbon containing formation may be treated using an in situ thermal process. A mixture of hydrocarbons, H<sub>2</sub>, and/or other formation fluids may be produced from the formation. Heat may be applied to the formation to raise a temperature of a portion of the formation to a pyrolysis temperature. An average temperature and/or pressure within the formation may be controlled to inhibit production of hydrocarbons that have carbon numbers greater than a selected carbon number. In some embodiments, the selected carbon number is 25. A small amount of hydrocarbons having carbon numbers greater than the selected carbon number may be entrained in vapor produced from the formation.